In the Claims

1.   (Currently Amended)   A system for managing event publication and subscription ~~of~~ for event producer-consumers of heterogeneous types using a plurality of mappers each specific to a particular type of event producer-consumer, the system comprising:

a logical event manager; and

a physical event manager in communication with the logical event ~~manager and~~ manager, a first event producer-consumer of a first type, and a second event producer-consumer of a second type, the first and second event producer-consumers being of heterogeneous types, wherein the physical event manager comprises:

a first mapper specific to the first type of the first event producer-consumer and operable to translate between the logical event manager and the first event producer-consumer; and

a second mapper specific to the second type of the second event producer-consumer and operable to translate between the logical event manager and the second event producer-consumer.

2.   (Currently Amended) The system of Claim 1, further comprising a listener-sender having the first mapper and in communication with the logical event manager and the first and ~~the~~ second event ~~producer-consumer~~ producer-consumers.

3.   (Currently Amended) The system of Claim 1, wherein the first mapper is operable to translate a signal occurring at the first event producer-consumer to a logical event for the logical event manager.

4.   (Currently Amended) The system of Claim 1, wherein the first mapper is operable to translate a logical event occurring at the logical event manager to a signal for the first event producer-consumer.

5.   (Currently Amended)   The system of Claim 1, wherein the first event ~~consumer-producer~~ producer-consumer is operable to subscribe to a logical event managed by the logical event manager.

6.   (Currently Amended)   The system of Claim 1, wherein the logical event manager is operable to publish a signal to the first event ~~consumer-producer~~ producer-consumer.

7.   (Currently Amended)   The system of Claim 1, wherein the first event ~~consumer-producer~~ producer-consumer is operable to communicate a signal to the logical event manager.

8.   (Currently Amended)   The system of Claim 1, wherein the physical event manager is operable to monitor the first <u>event</u> producer-consumer for a signal.

9.   (Currently Amended)   A method for managing event publication and subscription ~~of~~ <u>for</u> event ~~producer-consumers~~ <u>consumers of heterogeneous types using a plurality of mappers each specific to a particular type of event consumer</u>, the method comprising:

receiving a logical event from an event producer by a logical event manager;

communicating the logical event from the logical event manager to a physical event manager;

translating the logical event to a first signal by the physical event manager using a first mapper <u>specific to a first type of event consumer</u>;

translating the logical event to a second signal by the physical event manager using a second mapper <u>specific to a second type of event consumer, the first and second event consumers being of heterogeneous types</u>;

publishing the first signal to a first event consumer <u>of the first type</u>; and

publishing the second signal to a second event consumer <u>of the second type, the first and second event consumers being of heterogeneous types</u>.

10.   (Previously Presented)   The method of Claim 9, further comprising communicating a subscription for a logical event from the first event consumer to the physical event manager.

11.   (Previously Presented) The method of Claim 9, further comprising:

communicating a first subscription for a logical event from the first event consumer to the physical event manager; and

translating the first subscription into a first logical subscription using the first mapper.

12.   (Currently Amended)   The method of Claim 9, further comprising instantiating the physical event manager by establishing the first mapper and the second mapper, wherein the first mapper is associated with the logical event and the first event consumer and the second mapper is associated with the logical event and the second event consumer.

13.   (Currently Amended)   A method for managing event publication and subscription ~~of~~ for event ~~producer-consumers~~ producers of heterogeneous types using a plurality of mappers each specific to a particular type of event producer, the method comprising:

receiving a first signal from a first event producer of a first type using a ~~by a~~ physical event manager;

receiving a second signal from a second event producer of a second type using the ~~by the~~ physical event manager, the first and second event producers being of heterogeneous types;

translating the first signal to a first logical event using a first mapper specific to the first type of the first event producer;

translating the second signal to a second logical event using a second mapper specific to the second type of the second event producer;

communicating the first logical event from the first mapper to a logical event manager; and

communicating the second logical event from the second mapper to the logical event manager.

14.   (Previously Presented)   The method of Claim 13, further comprising communicating a subscription for the first logical event from a first event consumer to the physical event manager.

15.   (Currently Amended) The method of ~~Claim 13~~ Claim 14, further comprising:

communicating a first subscription for a logical event from the first event consumer to the physical event manager; and

translating the first subscription into a first logical subscription using the first mapper.

16.   (Previously Presented)   The method of Claim 13, further comprising communicating the first logical event from the logical event manager to a first event consumer.

17.   (Previously Presented)   The method of Claim 13, further comprising monitoring the first event producer for the first signal.

18.   (Previously Presented)   The method of Claim 13, further comprising instantiating the physical event manager by establishing the first mapper, wherein the first mapper is associated with the first logical event and the first event producer.

19.   (Currently Amended)   A method for managing event publication and subscription ~~of~~ for event producer-consumers of heterogeneous types using a plurality of mappers each specific to a particular type of event producer-consumer, the method comprising:

receiving a first signal from an event producer of a first event producer-consumer type ~~by a~~ using a physical event manager;

translating the first signal to a logical event using a first mapper specific to the first event producer-consumer type;

communicating the logical event to a logical event manager;

communicating the logical event to the physical event manager;

translating the logical event to second signal ~~using the~~ using a second mapper specific to a second event producer-consumer type; and

communicating the second signal to an event consumer of the second event producer-consumer type, the event producer and the event consumer being of heterogeneous event producer-consumer types.

20.   (Previously Presented)   The method of Claim 19, further comprising communicating a subscription for the logical event from the event consumer to the physical event manager.

21.   (Previously Presented)   The method of Claim 19, further comprising monitoring the event producer for the first signal.

22.   (Previously Presented)   The method of Claim 19, further comprising instantiating the physical event manager by establishing the first mapper, wherein the first mapper is associated with the logical event and the event producer.

23.   (Currently Amended)   A system for managing event publication and subscription for event producer-consumers of heterogeneous types using a plurality of mappers each specific to a particular type of event producer-consumer, comprising:

a logical event manager; and

a physical event manager in communication with the logical event manager and with a plurality of event producer-consumers, each event producer-consumer being of a particular type, the plurality of event producer-consumers being of heterogeneous types;

the physical event manager comprising a plurality of mappers each corresponding to a particular type of event producer-consumer and operable to:

for incoming physical events:

receive a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translate the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the logical event manager;

for outgoing physical events:

receive a logical event from the logical event manager;

translate the logical event received from the logical event manager into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.

24.   (Previously Presented) The system of Claim 23, wherein the physical event manager is operable use the mappers to translate a single logical event into:

a first particular type of signal for communication to a corresponding first particular type of event producer-consumer; and

a second particular type of signal for communication to a corresponding second particular type of event producer-consumer.

25.   (Previously Presented) The system of Claim 24, further comprising one or more listener-senders each comprising one or more mappers, each listener-sender monitoring the one or more event producer-consumers corresponding to the one or more mappers of the listener-sender.

26.   (Currently Amended) The system of Claim 24, wherein the logical event manager is operable to allow each event ~~consumer-producer~~ producer-consumer to subscribe to one or more logical events managed by the logical event manager.

27.   (Currently Amended) The system of Claim 26, wherein the logical event manager is further operable to publish a logical event for communication to each event ~~consumer-producer~~ producer-consumer that has subscribed to the logical event, for each event producer-consumer that has subscribed to the logical event the logical event being translated using the corresponding mapper and communicated in the form of the corresponding particular type of signal.

28.   (Previously Presented) The system of Claim 24, wherein:

the system allows for heterogeneous event exchange among a plurality of event producer-consumers each supporting a different native protocol for communicating signals indicative of physical events;

no event producer-consumer needs to have knowledge of any other event producer-consumer for event exchange with the other event producer-consumer; and

no event producer-consumer needs to have knowledge of the native protocol for any other event producer-consumer for event exchange with the other event producer-consumer.

29. (Previously Presented) The system of Claim 24, wherein:

the event producer-consumers are external event producer-consumers;

the logical event manager is in communication with a plurality of internal event-producer-consumers; and

the logical event manager is further operable to:

for incoming physical events, communicate the logical event to one or more internal event-producer-consumers;

for outgoing physical events, receive the logical event from an internal event-producer-consumer.

30. (Previously Presented) The system of Claim 24, wherein:

a first event-producer-consumer comprises a first machine with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second machine with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the physical event manager is operable to:

receive from the first machine a first signal in the first native protocol indicative of a physical event associated with the first machine;

use a first mapper corresponding to the first machine to translate the first signal received from the first machine in the first native protocol into a start machine logical event for communication to the logical event manager; and

use a second mapper corresponding to the second machine to translate the start machine logical event received from the logical event manager into a second signal in the second native protocol indicative of the start machine logical event for communication to the second machine, the second machine operable to start in response to receiving the second signal.

31. (Previously Presented) The system of Claim 30, wherein the first and second native protocols are different protocols.

32.   (Previously Presented) The system of Claim 24, wherein:

a first event-producer-consumer comprises a first data store with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second data store with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the physical event manager is operable to:

receive from the first data store a first signal in the first native protocol indicative of a physical event associated with the first data store;

use a first mapper corresponding to the first data store to translate the first signal received from the first data store in the first native protocol into a store data logical event for communication to the logical event manager; and

use a second mapper corresponding to the second data store to translate the store data logical event received from the logical event manager into a second signal in the second native protocol indicative of the store data logical event for communication to the second data store, the second machine operable to store data in response to receiving the second signal.

33.   (Previously Presented) The system of Claim 32, wherein the first and second native protocols are different protocols.

34.   (Currently Amended)   A method for managing event publication and subscription for event producer-consumers <u>of heterogeneous types using a plurality of mappers each specific to a particular type of event producer-consumer</u>, comprising:

establishing communication between a physical event manager and a logical event manager;

establishing communication between the physical event manager and a plurality of event producer-consumers<u>, each event producer-consumer being of a particular type, the plurality of event producer-consumers being of heterogeneous types</u>; and

using a plurality of mappers within the physical event manager, each corresponding to a particular type of event producer-consumer and operable to:

for incoming physical events:

receive a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translate the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the logical event manager;

for outgoing physical events:

receive a logical event from the logical event manager;

translate the logical event received from the logical event manager into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.

35.   (Previously Presented) The system of Claim 34, further comprising using the mappers of the physical event manager to translate a single logical event into:

a first particular type of signal for communication to a corresponding first particular type of event producer-consumer; and

a second particular type of signal for communication to a. corresponding second particular type of event producer-consumer.

36.   (Previously Presented) The method of Claim 34, further comprising using one or more listener-senders each comprising one or more mappers, each listener-sender monitoring the one or more event producer-consumers corresponding to the one or more mappers of the listener-sender.

37.   (Currently Amended) The method of Claim 34, further comprising using the logical event manager to allow each event ~~consumer-producer~~ producer-consumer to subscribe to one or more logical events managed by the logical event manager.

38.   (Currently Amended) The method of Claim 37, further comprising using the logical event manager to publish a logical event for communication to each event ~~consumer-producer~~ producer-consumer that has subscribed to the logical event, for each event producer-consumer that has subscribed to the logical event the logical event being translated using the corresponding mapper and communicated in the form of the corresponding particular type of signal.

39.   (Previously Presented) The method of Claim 34, wherein:

the method allows for heterogeneous event exchange among a plurality of event producer-consumers each supporting a different native protocol for communicating signals indicative of physical events;

no event producer-consumer needs to have knowledge of any other event producer-consumer for event exchange with the other event producer-consumer; and

no event producer-consumer needs to have knowledge of the native protocol for any other event producer-consumer for event exchange with the other event producer-consumer.

40.   (Previously Presented) The method of Claim 34, wherein:

the event producer-consumers are external event producer-consumers;

the logical event manager is in communication with a plurality of internal event-producer-consumers; and

the method further comprises using the logical event manager to:

for incoming physical events, communicate the logical event to one or more internal event-producer-consumers;

for outgoing physical events, receive the logical event from an internal event-producer-consumer.

41.   (Previously Presented) The method of Claim 34, wherein:

a first event-producer-consumer comprises a first machine with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second machine with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the method further comprises using the physical event manager to:

receive from the first machine a first signal in the first native protocol indicative of a physical event associated with the first machine;

use a first mapper corresponding to the first machine to translate the first signal received from the first machine in the first native protocol into a start machine logical event for communication to the logical event manager; and

use a second mapper corresponding to the second machine to translate the start machine logical event received from the logical event manager into a second signal in the second native protocol indicative of the start machine logical event for communication to the second machine, the second machine operable to start in response to receiving the second signal.

42.   (Previously Presented) The method of Claim 41, wherein the first and second native protocols are different protocols.

43.   (Previously Presented) The method of Claim 34, wherein:

a first event-producer-consumer comprises a first data store with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second data store with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the method further comprises using the physical event manager to:

receive from the first data store a first signal in the first native protocol indicative of a physical event associated with the first data store;

use a first mapper corresponding to the first data store to translate the first signal received from the first data store in the first native protocol into a store data logical event for communication to the logical event manager; and

use a second mapper corresponding to the second data store to translate the store data logical event received from the logical event manager into a second signal in the second native protocol indicative of the store data logical event for communication to the second data store, the second machine operable to store data in response to receiving the second signal.

44.   (Previously Presented) The method of Claim 43, wherein the first and second native protocols are different protocols.

45.   (Currently Amended)   Software for managing event publication and subscription for event producer-consumers <u>of heterogeneous types using a plurality of mappers each specific to a particular type of event producer-consumer</u>, the software embodied in computer-readable media and when executed operable to:

establish communication between a physical event manager and a logical event manager;

establish communication between the physical event manager and a plurality of event producer-consumers<u>, each event producer-consumer being of a particular type, the plurality of event producer-consumers being of heterogeneous types</u>; and

use a plurality of mappers within the physical event manager, each corresponding to a particular type of event producer-consumer and operable to:

for incoming physical events:

receive a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translate the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the logical event manager;

for outgoing physical events:

receive a logical event from the logical event manager;

translate the logical event received from the logical event manager into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.

46.   (Previously Presented) The software of Claim 45, further operable to use the mappers of the physical event manager to translate a single logical event into:

a first particular type of signal for communication to a corresponding first particular type of event producer-consumer; and

a second particular type of signal for communication to a corresponding second particular type of event producer-consumer.

47. (Previously Presented) The software of Claim 45, further operable to use one or more listener-senders each comprising one or more mappers, each listener-sender monitoring the one or more event producer-consumers corresponding to the one or more mappers of the listener-sender.

48. (Currently Amended) The software of Claim 45, further operable to use the logical event manager to allow each event ~~consumer-producer~~ producer-consumer to subscribe to one or more logical events managed by the logical event manager.

49. (Currently Amended) The software of Claim 48, further operable to use the logical event manager to publish a logical event for communication to each event ~~consumer-producer~~ producer-consumer that has subscribed to the logical event, for each event producer-consumer that has subscribed to the logical event the logical event being translated using the corresponding mapper and communicated in the form of the corresponding particular type of signal.

50. (Previously Presented) The software of Claim 45, wherein:

the software allows for heterogeneous event exchange among a plurality of event producer-consumers each supporting a different native protocol for communicating signals indicative of physical events;

no event producer-consumer needs to have knowledge of any other event producer-consumer for event exchange with the other event producer-consumer; and

no event producer-consumer needs to have knowledge of the native protocol for any other event producer-consumer for event exchange with the other event producer-consumer.

51.   (Previously Presented) The software of Claim 45, wherein:

the event producer-consumers are external event producer-consumers;

the logical event manager is in communication with a plurality of internal event-producer-consumers; and

the software is further operable to use the logical event manager to:

for incoming physical events, communicate the logical event to one or more internal event-producer-consumers;

for outgoing physical events, receive the logical event from an internal event-producer-consumer.

52.   (Previously Presented) The software of Claim 45, wherein:

a first event-producer-consumer comprises a first machine with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second machine with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the software is further operable to use the physical event manager to:

receive from the first machine a first signal in the first native protocol indicative of a physical event associated with the first machine;

use a first mapper corresponding to the first machine to translate the first signal received from the first machine in the first native protocol into a start machine logical event for communication to the logical event manager; and

use a second mapper corresponding to the second machine to translate the start machine logical event received from the logical event manager into a second signal in the second native protocol indicative of the start machine logical event for communication to the second machine, the second machine operable to start in response to receiving the second signal.

53.   (Previously Presented)   The software of Claim 52, wherein the first and second native protocols are different protocols.

54. (Previously Presented) The software of Claim 45, wherein:

a first event-producer-consumer comprises a first data store with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second data store with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the software is further operable to use the physical event manager to:

receive from the first data store a first signal in the first native protocol indicative of a physical event associated with the first data store;

use a first mapper corresponding to the first data store to translate the first signal received from the first data store in the first native protocol into a store data logical event for communication to the logical event manager; and

use a second mapper corresponding to the second data store to translate the store data logical event received from the logical event manager into a second signal in the second native protocol indicative of the store data logical event for communication to the second data store, the second machine operable to store data in response to receiving the second signal.

55. (Previously Presented) The software of Claim 54, wherein the first and second native protocols are different protocols.

56.   (Currently Amended)   A system for managing event publication and subscription for event producer-consumers <u>of heterogeneous types using a plurality of mappers each specific to a particular type of event producer-consumer</u>, comprising:

first means for receiving and communicating logical events; and

second means, in communication with the first means and with a plurality of event producer-consumers<u>, each event producer-consumer being of a particular type, the plurality of event producer-consumers being of heterogeneous types</u>, for translating signals received from event producer-consumers into logical events for communication to the first means and for translating logical events received from the first means into signals for communication event producer-consumers;

the second means comprising a plurality of mapping means each corresponding to a particular type of event producer-consumer and each for:

for incoming physical events:

receiving a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translating the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the first means;

for outgoing physical events:

receiving a logical event from the first means;

translating the logical event received from the first means into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.